

Application No. 10/776,727

No. 5000-1-521

IN THE ABSTRACT*Please amend the Abstract as follows:*

A method for upstream traffic control in an Ethernet-based passive optical network that prevents a penalty phenomenon occurring in upstream data transfer on the basis of a High Priority First Allocation (HPFA) algorithm and ensures the transfer priority allowed for an associated data frame while it uses all the allowed buffer resources efficiently. It is determined whether there are any data frames to transfer in a first buffer (B1), and whether the data frame does not exceed a low water mark (M) indicative of a reference value set up to ensure the minimum transfer traffic. If M is not exceeded, the data frame stored in B1 is transferred, ~~and it is determined whether~~when the data frame a second buffer B2 does not exceed M, the data frame in B2 is transferred. ~~If M is not exceeded, it is determined whether the data frame to transfer in a third buffer B3 does not exceed M. The respective data frame stored in B2 and B3 is transferred when the data frame in B3 does not exceed M.~~